



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 4600-4400 series

Toggle switches



## DISTINCTIVE FEATURES

- High current/voltage rating in a small case
- Butt action contacts
- Insulated or metal lever
- UL, CSA and VDE (EN 61058-1) approved



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :  
4 A 250 VAC - 6 A 125 VAC
- Approved electrical ratings : see table below
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1,000 MΩ min. at 500 VDC
- Dielectric strength :  
2,000 Vrms 50 Hz min. between terminals  
2,500 Vrms 50 Hz min. between poles and between terminals and frame
- Electrical life : 10,000 cycles at full load

Approvals	Models	Poles	Functions	Approved Ratings
UL/CSA	4600A	1-2	1-6-9	3 A 250 VAC - 6 A 125 VAC
VDE (EN 61058-1)	4400A	1-2	1-6	4(2) A 250 VAC
	4600A	1-2-3	1-6	4(2) A 250 VAC



## GENERAL SPECIFICATIONS

- Torque : 0.95 Nm (.70 Ft.lb) max. applied to nut
- Panel thickness : 5 mm (.196) between 2 nuts
- Operating temperature : -20 °C to +55 °C (-40 °F to +131 °F)
- Hand soldering : 270 °C (518 °F) max. for 10 seconds max. - iron Ø3 (.118)



## MATERIALS

- Case : melamine phenolic
- Actuator : - insulated : polyamide 6-6  
- non-insulated : brass, nickel plated
- Bushing : - insulated : polyamide 6-6  
- non-insulated : brass, nickel plated
- Contacts : silver

APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

The company reserves the right to change specifications without notice.



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## AGENCY APPROVALS



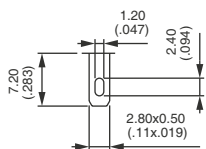
EN 61058-1

Availability : see above chart.

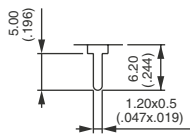
Marking : VDE approved models are standard marked. To order switches marked UL-CSA, complete appropriate box of ordering format.



## TERMINALS



Solder lug / quick-connect

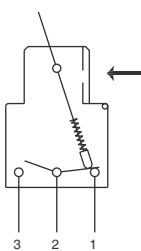


Straight PC

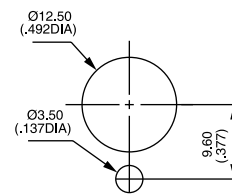
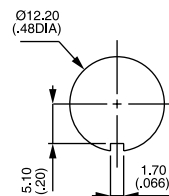
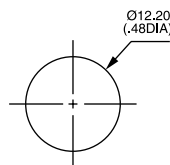


## ELECTRICAL FUNCTIONS

→ KEYWAY



## PANEL CUT-OUT



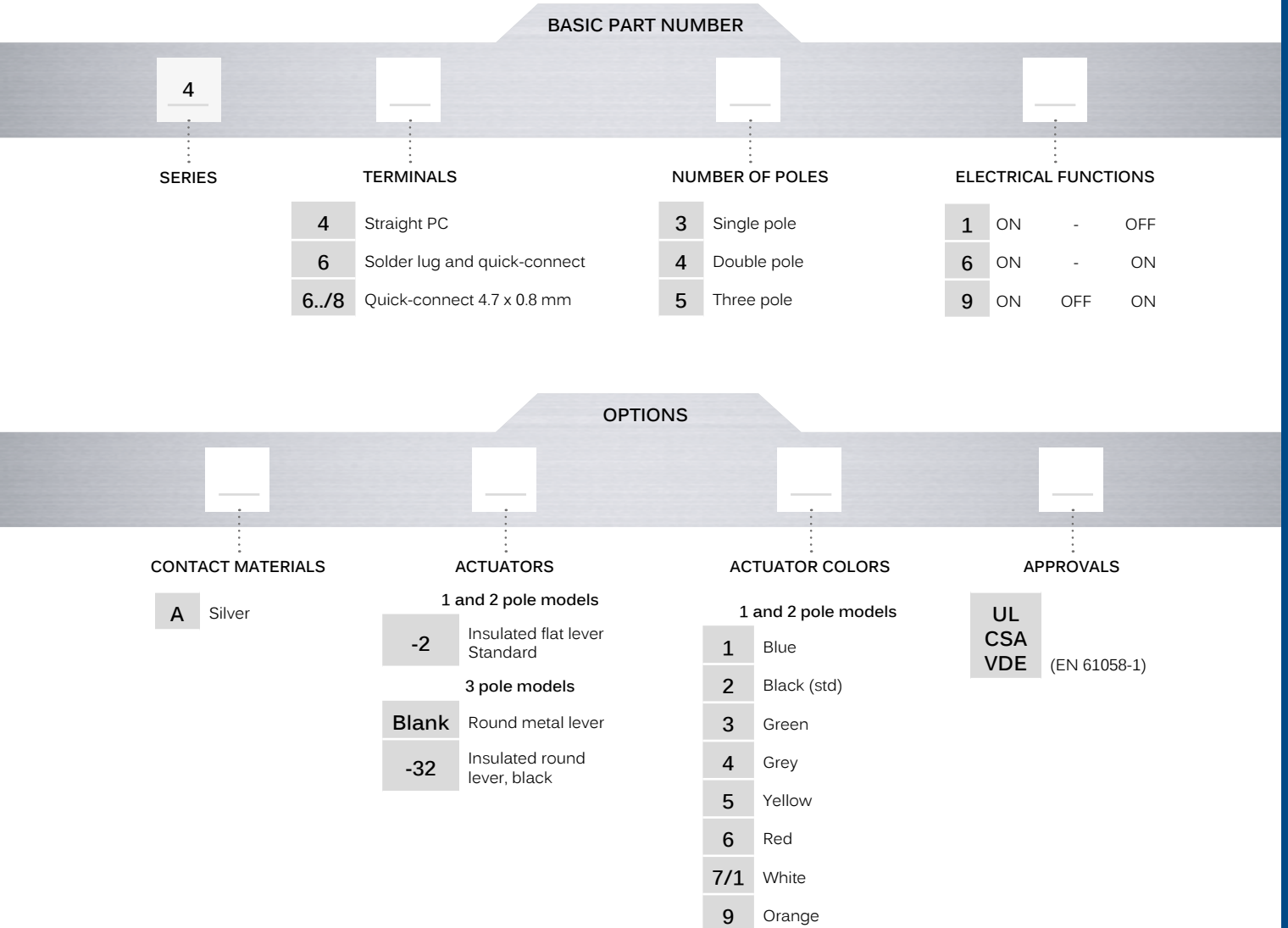


# 4600-4400 series

Toggle switches



## BUILD YOUR PART NUMBER



## ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

- Notice** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.
- Sealing boots** are available on 3 pole models to protect the switches against dust and water. See "Sealing Boot" section of website.
- Mounting accessories** : Standard hardware supplied with all models : 1 hex nut U166 and 1 knurled nut U520 in the same colour as the lever (insulated models) or U411 nickel plated (metal lever models). Standard and special hardware available is presented in the "Accessories" section of website.

# 4600-4400 series

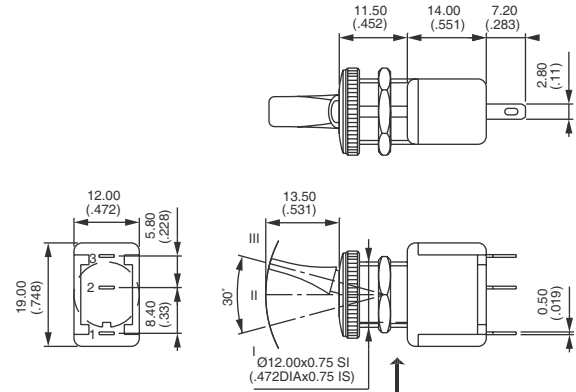
Toggle switches

## INSULATED FLAT LEVER - SOLDER LUG/ QUICK-CONNECT TERMINALS - SINGLE POLE



	III	II	I
4631 -2	ON	-	OFF
4636 -2	ON	-	ON
4639 -2	ON	OFF	ON

→ KEYWAY

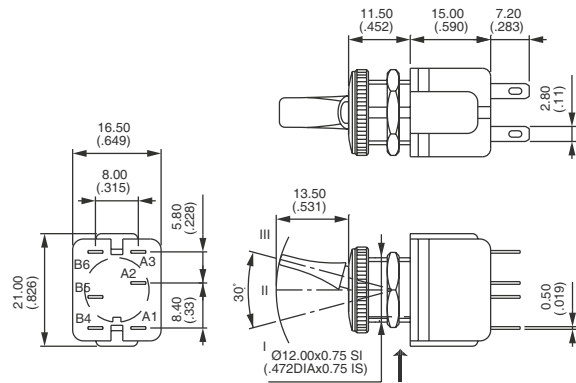


## INSULATED FLAT LEVER - SOLDER LUG/ QUICK-CONNECT TERMINALS - DOUBLE POLE



	III	II	I
4641 -2	ON	-	OFF
4646 -2	ON	-	ON
4649 -2	ON	OFF	ON

→ KEYWAY

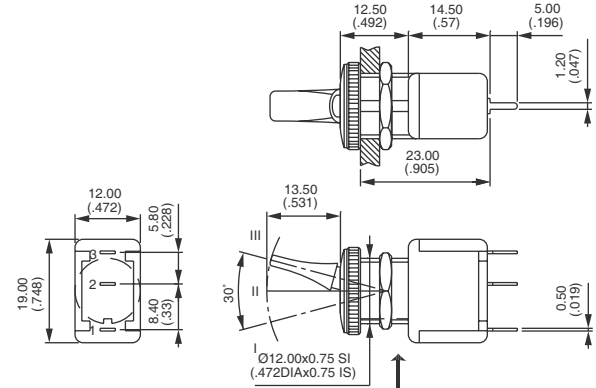


## INSULATED FLAT LEVER - STRAIGHT PC TERMINALS - SINGLE POLE



	III	II	I
4431 -2	ON	-	OFF
4436 -2	ON	-	ON
4439 -2	ON	OFF	ON

→ KEYWAY

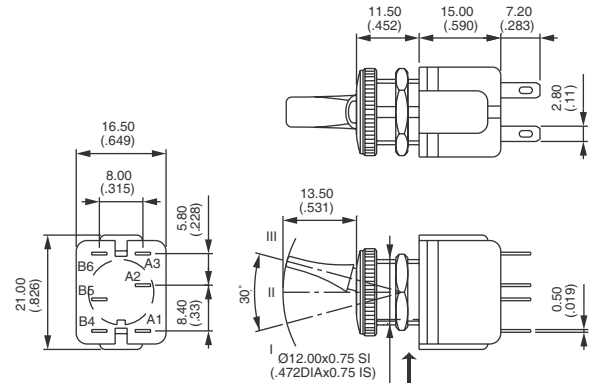


## INSULATED FLAT LEVER - STRAIGHT PC TERMINALS - DOUBLE POLE



	III	II	I
4441 -2	ON	-	OFF
4446 -2	ON	-	ON
4449 -2	ON	OFF	ON

→ KEYWAY



# 4600-4400 series

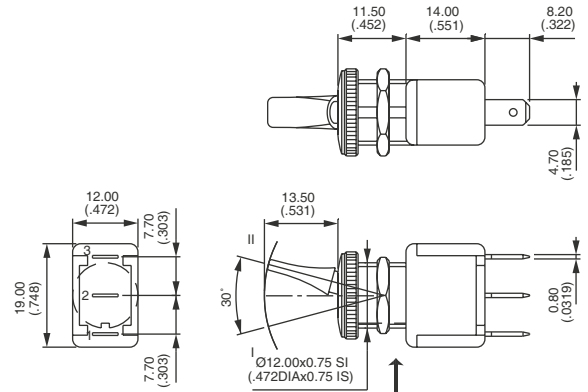
## Toggle switches

### INSULATED FLAT LEVER - QUICK-CONNECT TERMINALS 4.7 X 0.8 - SINGLE POLE



	I		II
4631/8 -2	ON	-	OFF
4636/8 -2	ON	-	ON

→ KEYWAY

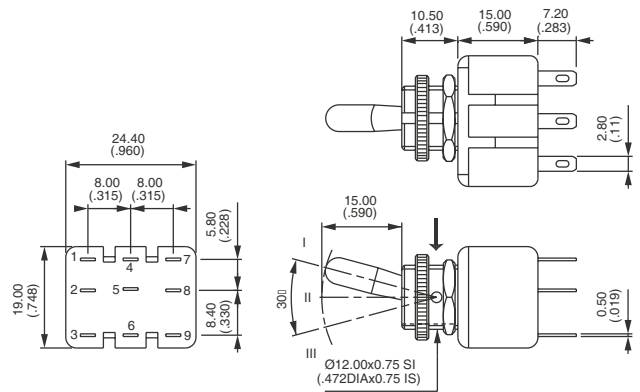


### ROUND METAL LEVER - SOLDER LUG TERMINALS - THREE POLE



	III	II	I
4651	ON	-	OFF
4656	ON	-	ON
4659	ON	OFF	ON

→ KEYWAY

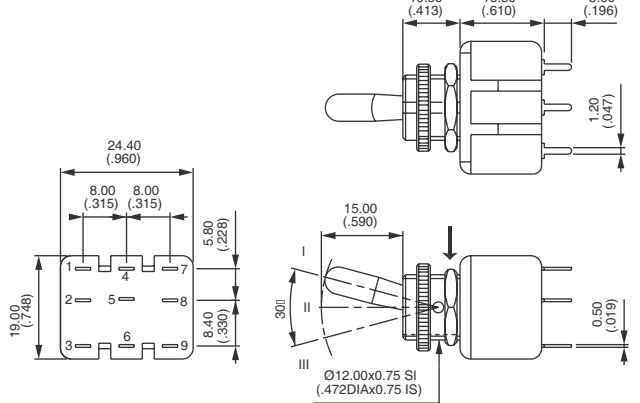


### ROUND METAL LEVER - STRAIGHT PC TERMINALS- THREE POLE



	III	II	I
4451	ON	-	OFF
4456	ON	-	ON
4459	ON	OFF	ON

→ KEYWAY

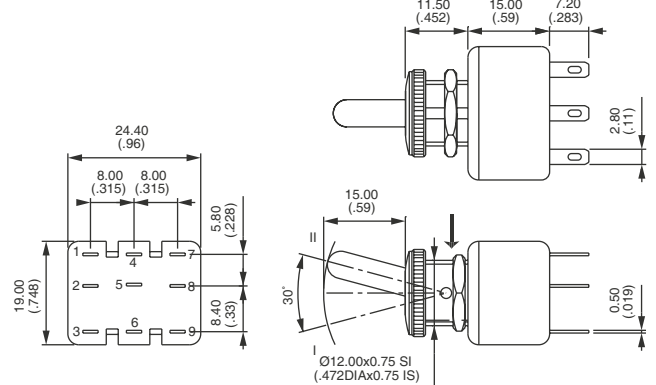


### ROUND METAL LEVER -SOLDER LUG TERMINALS - SILVER CONTACTS - THREE POLE



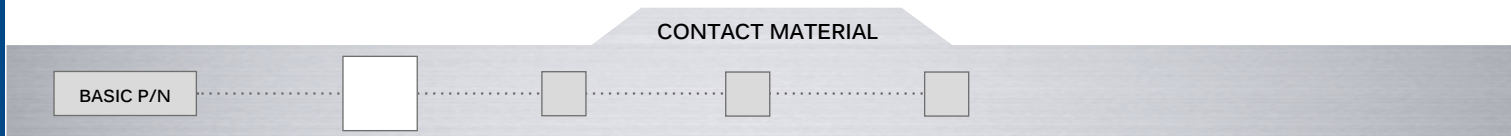
	I		II
4651A-32	ON	-	OFF
4656A-32	ON	-	ON

→ KEYWAY

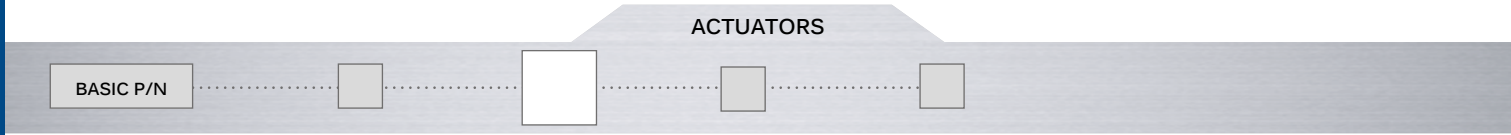


# 4600-4400 series

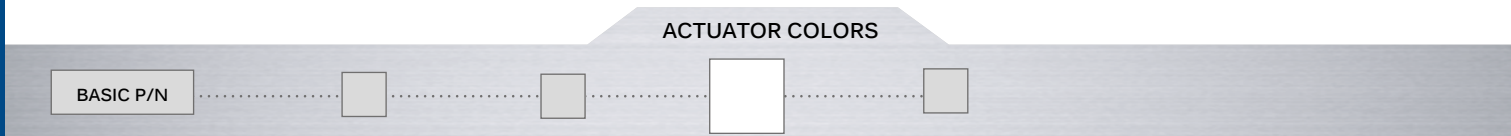
Toggle switches



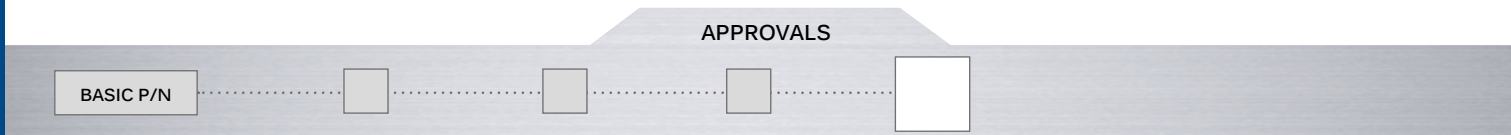
A Silver



- Blank Round, metal lever for 3 pole only
- 2 Insulated flat lever (for single and double pole only)
- 32 Black insulated round lever (for 3 pole only)



- 1 Blue For insulated flat lever
- 2 Black (standard) Black : standard color - reduced delivery time
- 3 Green Minimum order of 500 pieces for non-standard colors.
- 4 Grey
- 5 Yellow
- 6 Red
- 7/1 White
- 9 Orange



UU (UL-CSA) Single and double pole only

**Availability** : see specifications for details of approved models.  
**Marking** : to order switches marked UL-CSA, complete above box with 'UU'.  
 Other approvals available as standard, see specifications.